



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0636; Directorate Identifier 2012-SW-065-AD]

RIN 2120-AA64

Airworthiness Directives; Sikorsky Aircraft Corporation (Sikorsky) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for Sikorsky Model S-70, S-70A, and S-70C helicopters. This proposed AD would establish a new life limit based on a prorated formula for certain identified components (parts) installed on Model S-70, S-70A, and S-70C helicopters after being previously installed on certain military model helicopters. This proposed AD is prompted by the discovery that certain parts have been interchanged between military helicopter models with different life limits and the possibility that these same parts can be interchanged with civilian models with different life limits. The proposed actions are intended to establish a pro-rated in service life limit for each identified part to prevent fatigue failure of a part and subsequent loss of control of the helicopter.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Michael Davison, Flight Test Engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (781) 238-7156; email michael.davison@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy,

or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

We propose to adopt a new AD for Sikorsky Model S-70, S-70A and S-70C helicopters. Certain parts on Model S-70, S-70A, and S-70C helicopters are common to military Model UH-60M and SH-60B/F helicopters. These parts have identical part numbers. However, the part life limits may be different on the military models and are often lower due to higher usage and flight load spectrum. This proposed AD is prompted by the discovery that personnel at a military depot had installed military Model UH-60M parts on military Model UH-60A/L helicopters. Because the civilian Model S-70 series helicopters are derived from the military Model UH-60, it is possible that parts previously installed on military aircraft with a lower life limit could inadvertently be later installed on civil aircraft. This proposed AD would require establishing a pro-rated life limit for

each affected part to account for the heavier usage when previously installed on the Model UH-60M or SH-60B/F. The proposed actions are intended to establish appropriate remaining in-service lives to identified parts to prevent fatigue failure of a part and subsequent loss of control of the helicopter.

FAA's Determination

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition exists and is likely to exist or develop on other helicopters of this same type design.

Proposed AD Requirements

This proposed AD would require, within 25 hours time-in-service, inserting the component life prorating formula into the airworthiness limitation section of the maintenance manual or instructions for continued airworthiness, calculating the new life limit for each part by applying the formula, and establishing life limits for certain parts without applying the formula. Furthermore, the proposed AD would require updating the component log or equivalent record with the new in-service life limit. This proposed AD would also require replacing each part that has reached or exceeded its new life limit with an airworthy part. Lastly, this proposed AD would prohibit installing any applicable part on a Model S-70, S-70A, or S-70C helicopter if the number of hours is unknown and would prohibit installing certain parts on a Model S-70, S-70A, or S-70C helicopter if they have been previously installed on a Model UH-60M helicopter.

Costs of Compliance

We estimate that this proposed AD would affect 9 helicopters of U.S. Registry.

We estimate that the cost to insert the pages into the TM would be negligible.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

SIKORSKY AIRCRAFT CORPORATION (Sikorsky): Docket No. FAA-2013-0636; Directorate Identifier 2012-SW-065-AD.

(a) Applicability.

This AD applies to Model S-70, S-70A, and S-70C helicopters, certificated in any category, with the following parts installed:

(1) Spindle and liner assembly, part number (P/N) 38023-10374-041;

- (2) Main Rotor Hub, P/N 70070-10046-055 and -056;
- (3) Main Rotor Spindle nut, P/N 70102-08105-102;
- (4) Main Rotor Control Horn, P/N 70102-08111-047;
- (5) Main Rotor Hub, P/N 70103-08112-041 and -047;
- (6) Rotating Swashplate, P/N 70104-08001-044 and -045;
- (7) Main rotor Shaft Extension, P/N 70351-08186-043;
- (8) Main Rotor Gear Box Housing, P/N 70351-38110-043, -044, and -045;
- (9) Main Rotor Shaft, P/N 70351-38131-042;
- (10) Output Bevel Gear and Shaft, P/N 70358-06620-101 and -102;
- (11) Left Tie Rod Assembly, P/N 70400-08115-043, -045, -046, and -047;
- (12) Forward Bellcrank Support Assembly, P/N 70400-08162-042;
- (13) Lateral Servo Bellcrank, P/N 70400-08166-041; or
- (14) Tail rotor Servo Assembly, P/N 70410-06520-044 through -046.

(b) Unsafe Condition.

This AD defines the unsafe condition as a critical part remaining in service beyond its life limit due to previously being installed on a different helicopter model with higher usage and flight loads. This condition could result in fatigue failure of a critical part and subsequent loss of control of the helicopter.

(c) Comments Due Date.

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(d) Compliance.

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions.

(1) Within 25 hours time-in-service (TIS):

(i) Insert into the airworthiness limitation section of the maintenance manual or instructions for continued airworthiness the component life prorating formula in Section 1.1.3 of Sikorsky Technical Manual TM 1-70-23AW-2, Change 3, dated April 15, 2012.

(ii) Using the service life limits in Table 1 to paragraph (e) of this AD, apply the component life prorating formula and calculate the new life limit for each specified part. If the number of hours of a part is unknown, that part cannot be installed on a Sikorsky Model S-70, S-70A, or S-70C helicopter. Do not calculate a new life limit for the part where the Model SH-60 life limit is higher than the life limit on Models S-70, S-70A, and S-70C.

Table 1 to paragraph (e)

P/N	Part description	S-70, S-70A, S-70C service life	UH-60M service life	SH-60B/F service life
38023-10374-041	Spindle and Liner Assembly	8,000	6,400	10,000
70070-10046-055 and -056	Main Rotor Hub	5,100	3,100	N/A ¹
70102-08105-102	Main Rotor Spindle Nut	8,000	6,400	10,000
70102-08111-047	Main Rotor Control Horn	20,000/1,300 ² / 2,500 ²	10,000	N/A ¹
70103-08112-041 and -047	Main Rotor Hub	5,100	3,100	N/A ¹
70104-08001-044-045	Rotating Swashplate	11,000	4,600	9,600
70351-08186-043	Main Rotor Shaft Extension	14,000	4,900	16,000
70351-38110-043, -044, and -045	Main Rotor Gear Box Housing	11,000	4,000	9,000
70351-38131-042	Main Rotor Shaft	17,000	5,200	19,000
70358-06620-101 and -102	Output Bevel Gear and Shaft	5,000	1,800	N/A ¹
70400-08115-043, -045, -046, and -047	Left Tie Rod Assembly	14,000	4,600	6,300
70400-08162-042	Forward Bellcrank Support Assembly	14,000/2,500 ³	5,600	7,600
70400-08166-041	Lateral Servo Bellcrank	20,000	11,000	14,000
70410-06520-044 through -046	Tail Rotor Servo Assembly	15,000	11,000	N/A ¹

¹There is no service life limit listed because the parts on Model SH-60B/F have a different P/N than the parts on Models S-70, S-70A, and S-70C.

²For serial number (S/N) 32479930 through 324791859, with CAGE code 60078, the life limit is 1,300 hours TIS.

For S/N A241-07543 through A241-07594, A241-07706 through A241-07755, A241-07768 through A241-07771, A241-07800 through A241-07831, R241-00101 through R241-00355, R241-00701 through R241-00966, and R241-01001 through R241-01166, the life limit is 2,500 hours TIS.

³For S/N A-367-00001 through A367-00035, with CAGE code 78286, the life limit is 2,500 hours TIS.

(iii) Record the newly-established life limit of each part on the part's component log card or equivalent record.

(2) After establishing the new life limit, replace each part that has reached or exceeded its new life limit with an airworthy part before further flight.

(3) Do not install the following parts on a Model S-70, S-70A, or S-70C helicopter if they have been previously installed on a Model UH-60M helicopter:

(i) Bolt, self retaining, P/N 70103-08801-102;

(ii) Bifilar, P/N 70107-08400-046; (iii) Aft Bellcrank, P/N 70400-08102-045;

(iv) Aft Walking Beam Assembly, P/N 70400-08104-048; or

(v) Close Tolerance Bolt, P/N 70400-26802-102 and -103.

(f) Alternative Methods of Compliance (AMOC).

(1) The Manager, Boston Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Michael Davison, Flight Test Engineer, Boston Aircraft Certification Office, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone (781) 238-7156; email michael.davison@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(g) Subject.

Joint Aircraft Service Component (JASC) Code: 6220 Main Rotor Hub, 6230 Main Rotor Mast/Swashplate, 6320 Main Rotor Gearbox, 6310 Engine/Transmission Coupling, 6510 Tail Rotor Drive Shaft.

Issued in Fort Worth, Texas, on July 11, 2013.

Kim Smith,

Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

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